Amendments to the Claims:

Claim 1 (original): A method for matching the flow rate of first and second fluid flows in respective, fluidly-unconnected first and second flow paths, wherein the first flow path includes a first flow source which includes a positive displacement pump having a controllable pump speed, wherein the second flow path includes a second flow source and a flow-rate transducer, and wherein the method comprises the steps of:

a) shutting off the second flow source;

b) fluidly interconnecting the first and second flow paths creating an interconnected flow path which allows substantially the same flow from the positive displacement pump of the first flow source to encounter the flow-rate transducer;

c) after steps a) and b), obtaining readings from the flow-rate transducer for various values of the pump speed;

d) after step c), disconnecting the fluid interconnection between the first and second flow paths;

e) turning on the second flow source;

f) after steps d) and e), obtaining a reading from the flow-rate transducer; and

g) controlling the flow rate of the first fluid flow to match the flow rate of the second fluid flow by controlling the pump speed using the value of the pump speed in step c) which corresponds to the reading of the flow-rate transducer in step c) which substantially matches the reading of the flow-rate transducer in step f).

Claim 2 (original): The method of claim 1, wherein the flow-rate transducer is an uncalibrated flow-rate transducer.

Claim 3 (original): The method of claim 2, wherein the flow-rate transducer is an uncalibrated differential pressure transducer.

Claim 4 (original): The method of claim 2, wherein the positive displacement pump is an uncalibrated positive displacement pump.

Claim 5 (original): The method of claim 4, wherein the positive displacement pump is an uncalibrated peristaltic pump.

Claim 6 (original): The method of claim 4, wherein the flow-rate transducer is an uncalibrated flow-rate transducer.

Claim 7 (original): The method of claim 6, wherein the flow-rate transducer is an uncalibrated differential pressure transducer.

Claim 8 (original): The method of claim 7, wherein the positive displacement pump is an uncalibrated peristaltic pump.

Claim 9 (original): The method of claim 8, wherein the first flow path is a water replacement flow path of a kidney dialysis machine, and wherein the second flow path is a waste water flow path of the kidney dialysis machine.

Claim 10 (original): The method of claim 1, wherein the first flow path is a water replacement flow path of a kidney dialysis machine, and wherein the second flow path is a waste water flow path of the kidney dialysis machine.

Claim 11 (original): A fluid flow-rate matching system comprising:

a) a first fluid flow path having in series a first flow source and a first valve, wherein the first flow source includes a positive displacement pump having a controllable pump speed;

b) a second fluid flow path having in series a second valve and a flow-rate transducer;

c) a fluid interconnection path having in series a first end, an interconnection valve, and a second end, wherein the first end is in fluid communication with the first fluid flow path between the first valve and the positive displacement pump, and wherein the second end is in fluid communication with the second fluid flow path between the second valve and the flow-rate transducer; and

d) data representing various values of the pump speed of the positive displacement pump and representing readings of the flow-rate transducer corresponding to the values of the pump speed taken with the first valve fully shut, the interconnection valve fully open, and the second valve fully shut, wherein the pump speed is controlled from the reading of the flow-rate transducer taken with the first valve fully open, the interconnection valve fully shut, and the second valve fully open and from the data.

Claim 12 (original): The method of claim 11, wherein the flow-rate transducer is an uncalibrated flow-rate transducer.

Claim 13 (original): The method of claim 12, wherein the flow-rate transducer is an uncalibrated differential pressure transducer.

Claim 14 (original): The method of claim 12, wherein the positive displacement pump is an uncalibrated positive displacement pump.

Claim 15 (original): The method of claim 14, wherein the positive displacement pump is an uncalibrated peristaltic pump.

Claim 16 (original): The method of claim 14, wherein the flow-rate transducer is an uncalibrated flow-rate transducer.

Claim 17 (original): The method of claim 16, wherein the flow-rate transducer is an uncalibrated differential pressure transducer.

Claim 18 (original): The method of claim 17, wherein the positive displacement pump is an uncalibrated peristaltic pump.

Claim 19 (original): The method of claim 18, wherein the first flow path is a water replacement flow path of a kidney dialysis machine, and wherein the second flow path is a waste water flow

path of the kidney dialysis machine.

Claim 20 (original): The method of claim 11, wherein the first flow path is a water replacement flow path of a kidney dialysis machine, and wherein the second flow path is a waste water flow path of the kidney dialysis machine.

Claim 21 (new) A method for matching the flow rate of first and second fluid flows in respective, fluidly-unconnected first and second flow paths, wherein the first flow path includes a first flow source which includes a positive displacement pump having a controllable pump speed, wherein the second flow path includes a second flow source and a flow-rate transducer, wherein the flow-rate transducer is the only flow-rate transducer of the second flow path, wherein the first flow path is devoid of a flow-rate transducer, and wherein the method comprises the steps of:

a) shutting off the second flow source;

b) fluidly interconnecting the first and second flow paths creating an interconnected flow path which allows substantially the same flow from the positive displacement pump of the first flow source to encounter the flow-rate transducer;

c) after steps a) and b), obtaining readings from the flow-rate transducer for various values of the pump speed;

d) after step c), disconnecting the fluid interconnection between the first and second flow paths;

e) turning on the second flow source;

f) after steps d) and e), obtaining a reading from the flow-rate transducer; and

g) controlling the flow rate of the first fluid flow to match the flow rate of the second fluid flow by controlling the pump speed using the value of the pump speed in step c) which corresponds to the reading of the flow-rate transducer in step c) which substantially matches the reading of the flow-rate transducer in step f).